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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,226	03/24/2000	Mandy Mei-Feng Tsai	TI-29058	2779

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EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT PAPER NUMBER

2182

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/535,226

Applicant(s)

TSAI, MANDY MEI-FENG

Examiner

Joshua D Schneider

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-4 and 11-14 have been considered but are moot in view of the new ground(s) of rejection.

2. However, the argument that Kaneko does not teach a controller operable to prompt the second controller to access the second buffer when data is copied from the first buffer is not persuasive. While the controller of Kaneko is described as having many extra abilities not described by the applicant, it is a basic function of the controls to move the data from the first component to the second component through the first and second buffers. Kaneko teaches the controller moving data from the second buffer means to the second component (column 2, lines 38-46), the content of the buffers is checked, and if an error is not found, the data is moved onto the second component. The prompting of a second component is inherent in the fact that the controller affects the transfer from the second buffer to the second component unless an abnormal buffer-to-buffer copy occurs (column 2, lines 42-53).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,463,443 to Frankel et al. in further view of U.S. Patent 5,561,672 to Kaneko.

5. With regards to claims 1 and 11, Frankel teaches a first buffer connected to a first component operating at a first clock rate (Fig. 1, elements 10 and 18, column 1, lines 61-65), a second buffer connected to a second component operating at a second clock rate (Fig. 1, elements 14, 16, and 20, column 2, lines 1-5), and a copy/access controller for copying data from the first buffer to the second buffer when the first buffer is substantially full (Fig. 1, elements 22 and 16a, column 1, lines 65-68). Frankel fails to explicitly teach the prompting of a second component to access the second buffer when the data is copied from the first buffer. Kaneko teaches a first and second buffer (column 2, lines 32-36) and a control means for moving data from a first component to the first buffer, from the first buffer to the second buffer, and from a second buffer to a second component when data is copied from the first buffer to the second buffer (column 3, lines 48-64, Figs. 3 and 5B). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the buffer and two clock control system of Frankel with the two buffer system of Kaneko to provide a data transfer system that handles data transfers between components of different transfer rates without data errors.

6. With regards to claims 2 and 13, the Frankel teaches that random access memories were well known in the art (Fig. 2A). It would have been obvious to one of ordinary skill in the art at the time of invention that the first and second buffers could have been made of the well-known random access memories in order to take advantage of available memory types.

7. With regards to claims 3 and 12, Frankel teaches that shift registers were well known in the art (Figs. 2A and 2B). It would have been obvious to one of ordinary skill in the art at the time of invention that the first and second buffers could have been made of the well-known shift registers in order to take advantage of available memory types.

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8. With regards to claims 4 and 14, the advantages of integrating circuits onto a single semiconductor are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention that the circuit could have been integrated onto a single semiconductor with either the first or second component in order to decrease spatial requirements and the number of wiring connections.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,616,338 to Helen et al. teaches the buffers with control logic.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D Schneider whose telephone number is (703) 305-7991. The examiner can normally be reached on M-F, 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JDS



JEFFREY GAFFIN  
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